



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/630,572	08/03/2000	Hiroki Yoshida	44084-468	9613

7590 06/07/2004

McDermott Will & Emery
600 13th Street NW
Washington, DC 20005-3096

EXAMINER

CARTER, TIA A

ART UNIT	PAPER NUMBER
----------	--------------

2626

DATE MAILED: 06/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/630,572

Applicant(s)

YOSHIDA, HIROKI

Examiner

Tia A Carter

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 1-6 and 10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The claims disclose an edge detecting means, selecting means, calculation means, enhancement means and an edge enhancing means. The elements performing the function are not disclosed in the specification. The specification does disclose on page 8, line 6 a controller. However, this is insufficient to disclose one controller as all of the claimed means,

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Nagao (US. 6055340).

Regarding claim 7, Nagao discloses an image processing method (fig. 1, col. 6, lines 53-57), comprising the steps of:

determining the presence/absence of an edge at each pixel of input image data (fig. 1, col. 6, lines 64-66);

selecting a weighting matrix corresponding to the position of the edge for each target pixel determined to have an edge (fig. 1, col. 7, lines 60-65 and col. 12, lines 35-60, col. 13, lines 1-34);

calculating data of the target pixel and the pixels surrounds the target pixel using the weighting matrix (fig. 1, col. Col. 11, lines 45-67, col. 13, lines 35-57);

comparing the calculation result to a specific threshold value (fig. 3, col. 14, lines 45-67 and col. 15, lines 1-44; col. 21, lines 27-67);

Art Unit: 2626

determining the range of edge enhancement for the target pixel based on the comparison result (fig.3, col. 13, lines 58-67 and col. 14, lines 1-2); and

executing an edge enhancement process for the object pixels within the determined enhancement range (fig.3, col. 18, lines 9-45).

Regarding claim 8, Nagao discloses an image processing method according to claim 7, wherein

The weighting of components corresponding to the interior side of the edge in the weighting matrix is increased in the step of determining the range (fig. 1, col. 11, lines 45-67 and col. 12, lines 1-.31)

Regarding claim 9, Nagao discloses a medium readable by a computer storing computer-executable programs comprising the steps of:

determining the presence/absence of an edge at each pixel of input image data (fig. 1, col. 6, lines 64-66);

selecting a weighting matrix corresponding to the position of the edge for each target pixel determined to have an edge (fig. 1, col. 7, lines 60-65 and col. 12, lines 35-60, col. 13, lines 1-34);

calculating data of the target pixel and the pixels surrounds the target pixel using the weighting matrix (fig. 1, col. Col. 11, lines 45-67, col. 13, lines 35-57);

comparing the calculation result to a specific threshold value (fig. 3, col. 14, lines 45-67 and col. 15, lines 1-44; col. 21, lines 27-67);

Art Unit: 2626

determining the range of edge enhancement for the target pixel based on the comparison result (fig. 3, col. 13, lines 58-67 and col. 14, lines 1-2); and

executing an edge enhancement process for the object pixels within the determined enhancement range (fig. 3, col. 18, lines 9-45).

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Takamatsu et al.(US. 6233062), Nagao (US. 6628842), Shimura (US. 5886797), Kuwata et al. (US. 6392759) and Ohuchi et al. are cited to show related art with respect edge enhancing process.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tia A Carter whose telephone number is 703 - 306-5433. The examiner can normally be reached on M-F (7:00-3:30).

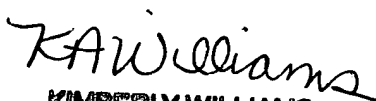
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly A Williams can be reached on 703-305-4863. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2626

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tia A Carter
Examiner
Art Unit 2626


TAC
May 14, 2004


KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER